

In re Appln. of LAWTON et al.  
Serial No. 09/260,837

REMARKS

As in the prior action, claims 1-30 stand rejected as obvious in view of several combinations of references. In particular, claims 1-3, 7-12, 14, 18, 22, and 23 are rejected under §103(a) as obvious over U.S. Pat. No. 6,272,484 to Martin et al. (hereinafter "*Martin*") in view of *Awareness Through Fisheye Views in Relaxed-WYSIWIS Groupware*, (1996)(hereinafter "*GroupLab*"), and *Adobe FrameMaker and SGML 5.5* (1997 Adobe Systems)(hereinafter "*FrameMaker*"). Claims 4 and 5 stand rejected as obvious in view of the aforementioned combination further augmented by *W3C's Scalable Vector Graphics Specification* (February 11, 1999)(hereinafter "*W3C*"). Claim 13 stands rejected under the first combination above further in view of *Adobe Acrobat 3.0 Online Guide* (hereinafter "*Online Guide*"). Claims 6, 15-17, 19-21, 24-26, 28, and 29 stand rejected under the first combination above further in view of *EduPage Newsletter* (February 4, 1997)(hereinafter "*EduPage*"). Finally, claims 27 and 30 stand rejected as obvious in view of the aforementioned combination further augmented by "*HTML Tags at a Glance*" (hereinafter "*HTML Tags*").

Claims 1, 8, 14, 18, 22, and 24 are amended herein, and claims 2 and 3 are cancelled. In particular, claim 1 has been amended to clarify that the document is an XML document and that the document components and model components employ the XML tags to create a linkage there between. With respect to claims 8, 14, 18, 22, and 24, these claims have been amended to clarify the hierarchical model structure, as illustrated in Figure 2, and its relationship to the actual document. Claims 2 and 3 were cancelled as encompassing matter elsewhere incorporated. It is respectfully submitted that the claims of record are patentable over the cited art, and reconsideration and withdrawal of the rejections with respect to the remaining claims is requested.

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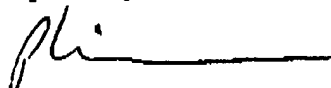
Interview Summary

Applicants' representative, the undersigned, thanks the Examiner and her supervisor for discussing the case on January 7, 2003 with Applicants' representative. The discussion focused primarily on claim 1, as representative of a number of claims, and on the *GroupLab* art. Although firm agreement was not reached, the Examiner did suggest possible claim amendments, to which Applicants have tried to adhere in this proposed amendment.

Conclusion

The application is considered in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If a further telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned at her convenience.

Respectfully submitted,



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**APPENDIX A-  
MARKED COPY OF AMENDED CLAIMS 1, 8, 14, 18, 22, and 24**

1. (Once Amended) A system for linking to a document, comprising:  
a document model, representative of the document, having a plurality of data structures representative of components within the document, wherein the document is an XML document; and  
a thumbnail image registered with the document model using XML tags of the XML document such that selected coordinates within the thumbnail image are each mapped to a data structure selected from the plurality of data structures.
8. (Once Amended) A method for registering a low-resolution thumbnail image with a document model having a plurality of data structures representative of components within a document, the method comprising the steps of:  
creating a full-sized bitmap image representative of the document;  
identifying coordinates within the full-sized bitmap image;  
mapping selected coordinates within the full-sized bitmap image to components selected from the document model, wherein the document model comprises hierarchically related model components, and whereby hierarchically related document components are associated with corresponding hierarchically related model components; and  
reducing the full-sized bitmap image into the low-resolution thumbnail image.
14. (Once Amended) A method for retrieving information from a document represented by a thumbnail image having coordinates registered with components selected from a document model having hierarchically related model components representative of hierarchically related components of the document, the method comprising the steps of:  
sensing the position of a cursor over the thumbnail image;  
determining the coordinates within the thumbnail image corresponding to the sensed cursor position;  
determining a component within the hierarchically related model components corresponding to the coordinates within the thumbnail image corresponding to the sensed cursor position; and

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retrieving data from the document corresponding to the determined component from the document model [registered] corresponding to [with] the determined coordinates.

18. (Once Amended) A computer-readable medium comprising instructions for retrieving information from a document represented by a thumbnail image having coordinates registered with components selected from a document model comprised of hierarchically related model components representative of hierarchically related components of the document, the instructions performing the steps of:

sensing the position of a cursor over the thumbnail image;

determining the coordinates within the thumbnail image corresponding to the sensed cursor position;

determining a component within the hierarchically related model components corresponding to the coordinates within the thumbnail image corresponding to the sensed cursor position; and

retrieving information from the document corresponding to the determined [components] component from the document model [registered] corresponding to [with] the determined coordinates.

22. (Once Amended) A computer-readable medium comprising instructions for registering a low-resolution thumbnail image with a document model having a plurality of data structures representative of components within a document, the instructions performing the steps of:

identifying coordinates within a full-sized bitmap image;

mapping selected coordinates within the full-sized bitmap image to components selected from the document model, wherein the document model comprises hierarchically related model components, and whereby hierarchically related document components are associated with corresponding hierarchically related model components; and

reducing the full-sized bitmap image into the low-resolution thumbnail image.

24. (Once Amended) A hand-held computer, comprising:

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a memory adapted to store thereon a document model, representative of a document, the document model having a plurality of hierarchically related data structures representative of hierarchically related components within the document; and

a display adapted to display a thumbnail image registered with the document model and a word-at-a-time display;

wherein the thumbnail image is registered with the document model such that selected coordinates within the thumbnail image are each mapped to a data structure selected from the plurality of hierarchically related data structures; and

wherein the word-at-a-time display is adapted to display data represented by components selected from the document model in response to interaction with the thumbnail.

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**APPENDIX B-  
CLEAN COPY OF PENDING CLAIMS**

1. (Once Amended) A system for linking to a document, comprising:
  - a document model, representative of the document, having a plurality of data structures representative of components within the document, wherein the document is an XML document; and
  - a thumbnail image registered with the document model using XML tags of the XML document such that selected coordinates within the thumbnail image are each mapped to a data structure selected from the plurality of data structures.
4. The system as recited in claim 1, wherein the components comprise images.
5. The system as recited in claim 4, wherein the images comprise vector graphics.
6. The system as recited in claim 1, further comprising a word-at-a-time display associated with the thumbnail image for displaying the data represented by selected components from the document model, the components selected in response to interaction with the thumbnail.
7. The system as recited in claim 1, wherein the components are individually addressable.
8. (Once Amended) A method for registering a low-resolution thumbnail image with a document model having a plurality of data structures representative of components within a document, the method comprising the steps of:
  - creating a full-sized bitmap image representative of the document;
  - identifying coordinates within the full-sized bitmap image;
  - mapping selected coordinates within the full-sized bitmap image to components selected from the document model, wherein the document model comprises hierarchically related model components, and whereby hierarchically related document components are associated with corresponding hierarchically related model components; and

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reducing the full-sized bitmap image into the low-resolution thumbnail image.

9. The method as recited in claim 8, wherein the document is a text document and the components comprise one or more page components, textual block components, textual line components and word components.

10. The method as recited in claim 8, wherein the document is an XML document.

11. The method as recited in claim 8, wherein the step of mapping further comprises the step of providing an address link to a computer storage location between the coordinates and each component selected from the document model mapped to the coordinates.

12. The method as recited in claim 8, wherein the step of identifying further comprises the step of identifying coordinates that define a unit of text.

13. The method as recited in claim 8, wherein the step of reducing further comprises the step of sub-sampling the full-sized bitmap image.

14. (Once Amended) A method for retrieving information from a document represented by a thumbnail image having coordinates registered with components selected from a document model having hierarchically related model components representative of hierarchically related components of the document, the method comprising the steps of:

sensing the position of a cursor over the thumbnail image;

determining the coordinates within the thumbnail image corresponding to the sensed cursor position;

determining a component within the hierarchically related model components corresponding to the coordinates within the thumbnail image corresponding to the sensed cursor position; and

retrieving data from the document corresponding to the determined component from the document model corresponding to the determined coordinates.

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15. The method as recited in claim 14, further comprising the step of streaming to a word-at-a-time display the data retrieved from the document.

16. The method as recited in claim 15, further comprising the step of altering the appearance of the thumbnail image to provide an indication of the information streamed to the word-at-a-time display.

17. The method as recited in claim 15, wherein the step of streaming is continued until a delimiter reflecting a unit of document organization is reached.

18. (Once Amended) A computer-readable medium comprising instructions for retrieving information from a document represented by a thumbnail image having coordinates registered with components selected from a document model comprised of hierarchically related model components representative of hierarchically related components of the document, the instructions performing the steps of:

- sensing the position of a cursor over the thumbnail image;
- determining the coordinates within the thumbnail image corresponding to the sensed cursor position;
- determining a component within the hierarchically related model components corresponding to the coordinates within the thumbnail image corresponding to the sensed cursor position; and
- retrieving information from the document corresponding to the determined component from the document model corresponding to the determined coordinates.

19. The computer-readable medium as recited in claim 18, further comprising instructions for performing the step of streaming to a word-at-a-time display the information retrieved from the document.

20. The computer-readable medium as recited in claim 19, further comprising instructions for performing the step of altering the appearance of the thumbnail image to provide an indication of the information streamed to the word-at-a-time display.



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21. The computer-readable medium as recited in claim 19, wherein the step of streaming is continued until a delimiter reflecting a unit of document organization is reached.

22. (Once Amended) A computer-readable medium comprising instructions for registering a low-resolution thumbnail image with a document model having a plurality of data structures representative of components within a document, the instructions performing the steps of:

- identifying coordinates within a full-sized bitmap image;
- mapping selected coordinates within the full-sized bitmap image to components selected from the document model, wherein the document model comprises hierarchically related model components, and whereby hierarchically related document components are associated with corresponding hierarchically related model components; and
- reducing the full-sized bitmap image into the low-resolution thumbnail image.

23. The computer-readable medium as recited in claim 22, wherein the step of identifying further comprises identifying coordinates that define a unit of text.

24. (Once Amended) A hand-held computer, comprising:

- a memory adapted to store thereon a document model, representative of a document, the document model having a plurality of hierarchically related data structures representative of hierarchically related components within the document; and

- a display adapted to display a thumbnail image registered with the document model and a word-at-a-time display;

- wherein the thumbnail image is registered with the document model such that selected coordinates within the thumbnail image are each mapped to a data structure selected from the plurality of hierarchically related data structures; and

- wherein the word-at-a-time display is adapted to display data represented by components selected from the document model in response to interaction with the thumbnail.

25. The hand-held computer as recited in claim 24, wherein the document is a HTML document.

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26. The hand-held computer as recited in claim 24, wherein the document model comprises one or more hyperlinks and the word-at-a-time display is adapted to display hyperlinks in a manner that attracts the visual attention of a user.

27. The hand-held computer as recited in claim 25, wherein the manner that attracts the visual attention of the user is flashing the hyperlink in the word-at-a-time display.

28. The hand-held computer as recited in claim 24, wherein the thumbnail image is adapted to track the context of information streamed to the word-at-a-time display.

29. The hand-held computer as recited in claim 28, wherein the document comprises one or more hyperlinks and the thumbnail image is adapted to display the context of streamed hyperlinks in a manner adapted to visually attract a user.

30. The hand-held computer as recited in claim 29, wherein the manner adapted to visually attract the user comprises flashing a portion of the thumbnail image corresponding to the streamed hyperlink.